

Remarks

The Examiner objects to the drawings, stating that Figures 4 and 6 are irreproducible. Amended Figures 1-7, which correspond substantially to Figures 1-7 presently on file are enclosed. It is respectfully submitted that the amended drawings are all reproducible and comply with 37 CFR 1.121(d). Withdrawal of the rejection is respectfully requested.

Paragraph [0073] has been amended to correct a minor typographical error.

Claims 1-22 are in the application. Claims 1 and 7-22 are amended.

Independent claims 1, 7 and 17 have been amended to specify that the data rate for the time multiplexed stream of data is a variable data rate, and that the stream of data has unaligned floating overhead bytes. Support for this amendment is found at least in paragraphs [0033]-[0035] and [0053], as well as the abstract as originally filed.

The Examiner objects to claims 8-16 because the claims recite a "network user interface" in the preamble. Claims 8-16 are presently being amended to properly refer to the "data network interface device as claimed in claim 7". Withdrawal of the objection is therefore respectfully requested.

The Examiner rejects claims 15-16 under 35 USC 112, second paragraph, stating that there is insufficient antecedent basis for the "parallel clock" limitation in the claim since there is no previous recitation on the arrangement of the "plurality of interface devices". Claims 15 and 16 have been amended to state that "each of said plurality of interface devices includes a parallel clock". It is respectfully submitted that the claims as amended comply with 35 USC 112, second paragraph, and withdrawal of that rejection is respectfully requested.

The Examiner rejects claims 17-22 under 35 USC 101, stating that the claimed invention is directed to non-statutory subject matter. As suggested by the Examiner, these claims have been amended to recite a "computer readable medium" so as to not include any medium that is directed to non-statutory subject matter.

The Examiner rejects claims 1-2, 5, 17-18 and 21 under 35 USC 103(a) as being unpatentable over Huscroft et al. (US 5,568,486), hereinafter referred to as Huscroft in view of Giorgetta et al. (US 7,053,292), hereinafter referred to as Giorgetta.

As explained in paragraphs [0020]-[0022] of the instant application, Huscroft assumes a particular number of overhead bytes per frame, and is unable to properly handle positive or negative pointer adjustments. The Examiner correctly identifies that Huscroft does not teach how a minimum interface rate is determined.

Giorgetta teaches a means for synchronizing the receiver of a signal stream to the transmitted signal. It depends on a *regular spacing* of frame synchronization overhead. The application as described in the amended claims does not synchronize an incoming data stream, but relies on synchronization already performed. More importantly, the claimed invention extracts data from a stream in which there is an irregular (i.e. variable) spacing of this information within the stream. Giorgetta teaches neither the determination of a minimum interface rate based on a variable data rate of the stream of data, nor that the stream of data has unaligned floating overhead bytes. The determination of the minimum rate of Giorgetta is not the minimum of a variable rate, as in the claimed invention, but is the minimum *fixed* rate. Therefore, the Giorgetta reference is irrelevant with respect to the method of determining the interface rate in Huscroft invention when compared to the claims as presently amended. It is respectfully submitted that one of ordinary skill in the pertinent art would not combine Huscroft and Giorgetta, and there is objective evidence in paragraphs [0020]-[0022] and [0033]-[0034] of the present application indicating that these references are not concerned with time multiplexed data streams being extracted or inserted to have variable data rates and no fixed alignment with respect to each other.

The Examiner rejects claims 3-4 and 19-20 under 35 USC 103(a) as being unpatentable over Huscroft as modified by Giorgetta and further in view of Akaiki et al. (US 7,139,286), hereinafter referred to as Akaiki. Claims 3-4 and 19-20 now include the subject matter of amended independent claims 1 and 17 by virtue of their dependence thereon. As described above, it is respectfully submitted that neither Huscroft nor Giorgetta either alone or in combination teaches or suggests determination of a minimum interface rate based on a minimum overhead spacing between any two consecutive overhead bytes in a given data path and on a data rate from a stream of data, the data rate being a variable data rate and the

stream of data having unaligned floating overhead bytes. The Akaike reference does not provide that which Huscroft and Giorgetta lack. As such, it is submitted that claims 3-4 and 19-20 comply with 35 USC 103(a).

The Examiner rejects claims 6 and 22 under 35 USC 103(a) as being unpatentable over Huscroft as being modified by Giorgetta, and further in view of VanDervort (US 5,764,626). VanDervort teaches removing and adding cells from within a stream of cells for purposes of testing and monitoring performance. The claimed invention processes fixed overhead within an outer transmission signal frame, not cells that are payload (data bytes) within the payload portion of the transmission frame. While VanDervort does teach pipelining, it does not teach the determination of a minimum interface rate based on a minimum overhead spacing between any two consecutive overhead bytes in a given data path and on a data rate of a stream of data, the data rate being a variable data rate and the stream of data having unaligned floating overhead bytes. Therefore, it is respectfully submitted that claims 6 and 22 comply with 35 USC 103(a).

The Examiner rejects claims 7-11 and 13 under 35 USC 103(a) as being unpatentable over Huscroft in view of Venkataraman ("Designing SONET/ATM Layer Processing ASICs Using Embedded Approach"). The Examiner states that Venkataraman teaches a SONET processing system implemented in an embedded multi-processor system on a chipped design. However, Venkataraman does not teach or suggest the determination of a minimum interface rate based on a minimum overhead spacing between any two consecutive overhead bytes in a given data path and on a data rate of a stream of data, the data rate being a variable data rate and the stream of data having unaligned floating overhead bytes. Therefore, it is respectfully submitted that claims 7-11 and 13 comply with 35 USC 103(a).

The Examiner rejects claim 12 under 35 USC 103(a) as being unpatentable over Huscroft as modified by Venkataraman, and further in view of VanDervort. As explained earlier, none of these references either alone or in combination teaches or suggests the determination of a minimum interface rate based on a minimum overhead spacing between any two consecutive overhead bytes in a given data path and on a data rate of a stream of data, the data rate being a variable data rate and the stream of data having unaligned floating overhead bytes. Therefore, it is respectfully submitted that claim 12 complies with 35 USC 103(a).

The Examiner objects to claim 14 under 35 USC 103(a) as being unpatentable over Huscroft as modified by Venkataraman, and further in view of Parruck et al. (US 7,139,271), herein after referred to as Parruck. While Parruck and the present invention both use the term "calendar", the meaning of the term is quite different in each case. Parruck uses the calendar for the purposes of scheduling the movement of cell, cells/packets through a cell/packet switching system. For example, Parruck column 19, lines 63 through column 20, line 57 illustrates the calendar for scheduling the movement of cell/packet data from the switch memory to the egress ports. In contrast, the claimed invention uses the calendar to determine the location of the overhead information within the transmission signal that it is attempting to extract from the signal. Hence, Parruck's use of a "calendar" adds nothing to Huscroft and Venkataraman in view of the amended claims.

Claim 15 is rejected under 35 USC 103(a) as being unpatentable over Huscroft as modified by Venkataraman, and further in view of Akaïke. As described earlier, none of these references, either alone or in combination, teaches or suggests the determination of a minimum interface rate based on a minimum overhead spacing between any two consecutive overhead bytes in a given data path and on a data rate of a stream of data, the data rate being a variable data rate and the stream of data having unaligned floating overhead bytes. Therefore, it is respectfully submitted that claim 15 complies with 35 USC 103(a).

The Examiner rejects claim 16 under 35 USC 103(a) as being unpatentable over Huscroft as modified by Venkataraman, and further in view of Robertson et al. (US 7,027,447), hereinafter referred to as Robertson and Akaïke. As described earlier, none of these references, either alone or in combination, teaches or suggests the determination of a minimum interface rate based on a minimum overhead spacing between any two consecutive overhead bytes in a given data path and on a data rate of a stream of data, the data rate being a variable data rate and the stream of data having unaligned floating overhead bytes. Therefore, it is respectfully submitted that claim 16 complies with 35 USC 103(a).

It is respectfully submitted that the Examiner has not provided a proper rejection of the above claims based on the rationale that there is some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill in the art to modify the prior art reference or to combine prior art teachings to arrive at the claimed invention. It is respectfully submitted that the Examiner has not articulated the following:

1. a finding that there was some teaching, suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings;
2. a finding that there was reasonable expectation of success; and
3. whatever additional findings based on the Graham factual inquiries may be necessary, in view of the fact that the case under consideration, to explain the conclusion of obviousness.

It is respectfully submitted that the Examiner has not made all of these findings, and therefore this rationale cannot be used to support a conclusion that the claims would have been obvious to one of ordinary skill in the art.

As such, it is respectfully submitted that the claims as amended comply with 35 USC 103(a) and withdrawal of the rejections of the claims on that basis is respectfully requested.

It is respectfully submitted that the present application is now in condition for allowance and the Applicant looks forward to receiving an indication of patentability.

The Commissioner is hereby authorized to debit \$460.00 from Deposit Account No. 501593, in the name of Borden Ladner Gervais LLP, representing the fees for a two month extension of time.

The Commissioner is hereby authorized to charge any additional fees, and credit any over payments to Deposit Account No. 501593, in the name of Borden Ladner Gervais LLP.

Respectfully submitted,

MLAZGAR, Kevin et al.

By: /Curtis B. Behmann/

Curtis B. Behmann

Reg. No. 52,523

Borden Ladner Gervais LLP

World Exchange Plaza

100 Queen Street, Suite 1100

Ottawa, ON K1P 1J9

CANADA

Tel: (613) 237-5160

Fax: (613) 787-3558

E-mail: ipinfo@blgcanada.com

CBB/dbm